

IN THE CLAIMS

1. (currently amended) A targeting apparatus for a locking nail having cross-bores, the axes of which are disposed in an offset relationship from each other by predetermined distances and/or predetermined angles, comprising:

a targeting arm having at least one target bore therein and a holding device to retain a first end of the nail;

a retaining portion having a reception bore in which a retaining bar forming part of the holding device is guided which bar extends parallel to the targeting arm, the retaining bar has a fastener to fix the nail to a leading~~face~~ end of the bar, the retaining bar has several recesses in the area of the reception bore, the reception bore has associated therewith a handle having a movable locking element mounted thereon which can be caused to engage one of the recesses ~~by means of a handle~~ to locate the axial and rotational positions of the retaining bar in the reception bore, wherein the arrangement of the recesses is such that the target bore is aligned with a cross-bore of the nail when the locking element engages a recess and ~~that~~ the handle has associated therewith means for indicating whether the locking element is in engagement with the recess or is not in engagement therewith.

2. (currently amended) The targeting apparatus as set forth in claim 1 wherein the handle is rotatably supported on a radially extending outer lug of ~~the~~ retaining portion including the reception bore and the handle actuates a radial cam follower portion which engages with a cam surface formed on a sleeve portion mounted on the retaining portion such that if the handle is rotated in a predetermined direction from an initial position in which the locking element is in its unlocking position, the locking element is moved radially with respect to~~into~~ the reception bore ~~by a predetermined direction of rotation~~ and the

cam surface has a first cam surface portion ~~defining~~joining the unlocked position and a second cam surface portion joining the first cam surface portion, wherein the engagement of the radial cam follower portion in the second cam surface portion takes place in a self-locking manner and ~~the handle or~~ the radial cam follower portion is biased by a spring in the direction of the first cam surface defining the unlocked position.

3. (currently amended) The targeting apparatus as set forth in claim 2 wherein the radial lug is annularly cylindrical and the cam surfaces are defined by a groove in a sleeve~~the radial lug wall~~ and the radial cam follower portion connected to the handle engages the groove.

4. (currently amended) The targeting apparatus as set forth in claim 3 wherein the radial cam follower portion is defined by a cross-pin which radially extends ~~through the lug~~ within the groove.

5. (currently amended) The targeting apparatus as set forth in claim 2 wherein the locking pin has an axial bore in which a helical spring first end is mounted and a second~~is arranged the other~~ end of which is supported on the cross-bore.

6. (original) The targeting apparatus as set forth in claim 4 wherein the cross-pin extends through a cross-bore of the locking pin.

7. (original) The targeting apparatus as set forth in claim 1 wherein the reception bore is defined by an annularly cylindrical component which is adapted to be located in a recess of the target arm by means of a radial outer tongue.

8. (original) The targeting apparatus as set forth in claim 7 wherein the component has at least one window through which the retaining bar can be seen.

9. (currently amended) The targeting apparatus as set forth in claim 1 wherein the reception bore has ~~flat~~prismatic surfaces which are approximately opposed to the locking element and against which the retaining bar is pressed by the locking element.

10. (original) The targeting apparatus as set forth in claim 1 wherein the retaining bar in the area of the recesses, has annular groove by which the locking element can be brought into engagement with the recesses.

11. (currently amended) A targeting device for locating cross-bores in an implanted intramedullary nail comprising:

a targeting arm having at least one guide bore alignable with a cross-bore in the nail and a bushing extending along an axis generally perpendicular to said guide bore;

a targeting arm positioning rod rotatably and slidably mounted within a bore of said bushing, said rod fixedly mounted on an end of said intramedullary nail, said targeting arm positioning~~positioner~~ rod including a plurality of offset detents corresponding to the locations of cross-bores on said nail; and

a selectively engageable locking element mounted on said bushing moveable into and out engagement with one of the detents on said targeting arm positioning~~locator~~ rod wherein the arrangement of the recesses is such that the guide~~target~~ bore is aligned with a cross-bore of the nail when the locking element engages a detent.

12. (previously presented) The targeting device as set forth in claim 11 wherein said detents on said locator rod are recesses in said rod and said detent element on said bushing is moveable from a first position in said bushing bore wherein said locking element extends partially into said detent recess to a second position in said bore extending fully into said detent recess.

13. (previously presented) The targeting device as set forth in claim 12 wherein said locking element on said bushing is spring biased towards said first position.

14. (previously presented) The targeting device as set forth in claim 13 wherein said bushing has an actuator handle mounted on an outer surface thereof, said handle engaging said detent element on said bushing and being moveable against said spring biasing from a first position wherein said bushing locking element is in said first position to a second position wherein said bushing is in said second position.

15. (previously presented) The targeting device as set forth in claim 14 wherein said handle is rotatably mounted on said bushing outer surface and has a cam surface thereon engageable with a cam follower on said locking element so that rotation of said handle moves said bushing locking element from said first position to said second position against said spring bias.

16. (currently amended) The targeting device as set forth in claim 15 wherein the cam has a first ramp portion and a second ramp portion, the first ramp portion having a steeper angle and the second ramp portion is dimensioned to prevent said cam follower from entering said first~~second~~ ramp portion unless

~~when~~ said bushing locking element is manually moved into said first~~second~~ position.

17. (original) The targeting device as set forth in claim 11 wherein said bushing is removably mounted within a fixed bore on said targeting arm.

18. (currently amended) A targeting device for locating cross-bores in an implanted intramedullary nail comprising:

a targeting arm having at least one guide bore alignable with cross-bores in the nail and a bushing extending along an axis generally perpendicular to said guide bore;

a targeting arm positioning rod rotatably and slidably mounted within a bore of said bushing, said rod fixedly mounted on an end of said intramedullary nail, said targeting arm positioning rod including a plurality of offset detents corresponding to the locations of said cross-bores on said nail;

a selectively engageable detent element mounted within said bushing and moveable into and out of engagement with the detents on said positioning rod upon axial and/or rotational movement of the targeting arm positioning rod with respect to said bushing;

a spring~~biasing~~ means for biasing~~moving~~ said detent element from a first position partially within said bore of said bushing to a second position fully within said bore and in engagement with the detents on the targeting arm positioning rod.

19. (currently amended) The targeting device as set forth in claim 18 wherein said bushing has an actuator handle mounted on an outer surface thereof, said handle engaging said detent element on said bushing and being moveable against said biasing means from a first position wherein said bushing detent element

is in said first position to a second position wherein said detent element~~bushing~~ is in said second position.

20. (currently amended) The targeting device as set forth in claim 19 wherein said handle is rotatably mounted on said bushing outer surface and is~~and has a cam surface thereon~~ engageable with a cam follower on said detent element which engages a cam surface so that rotation of said handle moves said ~~bushing~~ detent element from said first position to said second position against said spring bias.

21. (currently amended) The targeting device as set forth in claim 20 wherein the cam surface has a first ramp portion and a second ramp portion, the first ramp portion having a small~~steeper~~ angle ~~and~~ dimensioned to prevent said cam follower from entering said second ramp portion unless said bushing detent element is moved into said second position.